

CORAL REEF INITIATIVE EDUCATION & OUTREACH COMMUNICATIONS PLAN



Background

The CNMI Coral Reef Initiative (CRI) was founded in 2003 in partnership with NOAA's Coral Reef Conservation Program. The CRI is a cross-agency initiative between the Bureau of Environmental and Coastal Quality (BECQ), Division of Coastal Resources Management (DCRM), Division of Environmental Quality (DEQ), the Department of Lands and Natural Resources (DLNR), and the Division of Fish and Wildlife (DFW). These agencies work together to protect and preserve CNMI's coral reef ecosystems and ensure responsible management of these resources. This work is achieved through biological monitoring, habitat restoration, research, enforcement, and education and outreach.

Widespread understanding and support for coral reef management plans and activities in the CNMI has been limited and varies greatly among members of the general public. This lack in awareness and appreciation has made it difficult to inspire change in individual attitudes and behavior, and greatly impedes the community's ability to make decisions for effective coral reef management.

Historically, education and outreach efforts have focused heavily on 4th and 5th grade audiences, collaborating with PSS educators on Saipan, Tinian, and Rota, as well as other agencies, to coordinate outreach events such as "CNMI Snorkels" and the Ridge to Reef Eco Camps. We have also made an effort to reach additional audiences by taking advantage of opportunities to conduct outreach at events such as the Marianas Tourism and Education Council's (MTEC) Tourism Summit and the Timmy Would Go Memorial Paddle Classic. These events allow us to reach a wider audience of resource users as well as help CRI establish a presence in the community.

Communication, education, and outreach continues to be an integral part of the CNMI's coral reef conservation plan. The education and outreach team continually works to enhance public awareness, understanding, and appreciation of coral reef ecosystems and empower the public to become active stewards of the marine environment. The success of our efforts is measured in a number of ways. For example, pre and post-presentation/activity surveys are distributed to students to determine if coral reef knowledge has increased; human dimensions' surveys track public awareness and attitudes; and temporal data collected from specific areas help us to determine the effectiveness of targeted outreach plans (i.e. LaoLao Bay Pride Campaign).

Goals and objectives

- To increase knowledge of the importance of coral reefs and threats to coral reef ecosystems
- To engage and actively involve the community in coral reef management
- To increase local support of coral reef management plans

Target Audience

- Resource users (i.e. residents, water sports operators, tourists)
- Policy/decision makers
- Community groups

Key Messages

CRI has consistently used the slogan “Every Act Counts” to communicate simple pro-environmental activities that stakeholders can engage in. We’ve also begun to incorporate the slogan “Do What You Can” to combat feelings of apathy and powerlessness that can often times undermine an individual’s motivation to engage in acts that protect the environment. These common barriers to personal engagement can be counteracted by clear and consistent messages that include simple calls to action and aim to address the specific concerns of stakeholders. The Education and Outreach Coordinator will also work with the Watershed Coordinator on specific “Ridge to Reef” messaging, highlighting the connection between healthy land and a healthy coral reef.

- “Every Act Counts”, “Do What You Can”, and “Ridge to Reef”
 - Corals are living animals that protect our islands, don’t take or step on them.
 - Love our beaches, keep them clean (anti-litter)
 - Protect our sea, plant a tree
 - Don’t drag the reef into this, use mooring buoys
 - Follow the rules and regulations when in marine protected areas
 - Implement erosion control and rainwater BMP’s on your properties
 - Size matters - don’t take fish that are below reproductive size



Figure 1 The “Reef Hugger” sticker as part of the CRI branding.

Methods of Communication

The Education and Outreach Coordinator makes use of a number of communication methods to ensure that the messages being communicated are appropriate for the target audience. In determining appropriate communication methods, we take into account the cost-effectiveness of the method, the method of delivery, and the audiences level of understanding.

Education and Outreach Materials

An integral part of these communication efforts include developing and disseminating educational materials such as the annual coral reef calendar, eco-cards, media articles, fact sheets and posters. These materials are then distributed to different organizations, including the Marianas Visitors Authority and Joeten-Kiyu Public Library. The coral reef calendar continues to be a powerful tool for outreach as its popularity amongst residents allows us to communicate a multitude of pro-environmental messages to a diverse audience. Eco-cards are small placards placed by the register or alongside products at participating businesses that suggest ways to be more environmentally friendly, such as bringing a reusable grocery bag or choosing products without toxic chemicals. This is a cost-effective form of

communication that also allows us to connect to an expansive audience. Fact sheets, stickers, and/or posters are distributed at events and after presentations.



Figure 2 Cover page of the 2017 CRI Calendar.

School Presentations

The Education and Outreach Coordinator will collaborate with the CNMI Public School System, as well as a number of private schools, to give coral reef presentations to every 4th and 5th grade classroom, in addition to special requests for presentations. The Coordinator will utilize appropriate teaching methods, such as the climate change videos and the watershed model, to actively engage the students.

Alongside 4th and 5th grade classrooms, the Education and Outreach Coordinator will conduct outreach that specifically targets 10th and 11th grade classrooms. This will build off of Climate Change curricula that is to be implemented in 6th and 9th grade classrooms in 2017. The 10th and 11th grade outreach intends to expand on the concepts learned as part of the curriculum. This includes how climate change will affect coral reefs and what we can do to minimize those impacts here in the CNMI. The 4th, 5th, 10th, and 11th grade outreach, combined with the climate change curricula in 6th and 9th grades, will bridge a large gap in coral reef and climate science in the CNMI public school system.



Figure 3 A coral reef presentation is given to students of Kagman High School.

Community Events and Media

Education and outreach will also be performed at community events around the CNMI. The Coordinator will continue to participate in the Environmental Expos on both Saipan and Rota each April as part of Environmental Awareness Month. In addition to the environment-specific events, the Coordinator will take advantage of other community events to conduct outreach. Island-wide community events have been under-utilized in the past but are important avenues for public education as they allow us to reach a wide and diverse audience in one setting. Equally important is the unique opportunity for these events to allow us to establish a presence in the community, enabling us to build rapport with residents and instill trust in our leadership.



Figure 4 The "Love Our Beaches" mascot, Primo, makes an appearance at a community outreach event.

The Education and Outreach Coordinator will also utilize various media outlets such as radio, print, and television, as well as social media, to advertise the Coral Reef Initiative and disseminate information on ongoing projects and activities.

An important part of our communications strategy is establishing – and eventually maintaining – a strong online presence, utilizing various forms of social media such as Facebook and Instagram. Social media increasingly continues to be a strong tool for public outreach. It also allows us to reach CNMI residents living off island and in the mainland, many of whom frequently return or plan on returning to the CNMI. Social media is also, arguably, the most cost-effective of all communication methods, as profiles are free and engaging audiences has no expense other than time.

The Coordinator will continue to partner with the Marianas Variety newspaper to develop and publish “Reef Tips” and “Beach Tips” articles - monthly publications containing pro-environmental tips and other information to increase community understanding of coral reef ecosystems. Similarly, we will continue to partner with Beach Road Magazine to develop and publish articles for their dedicated “Our Environment” section. If appropriate and cost-efficient, articles may be printed as advertisements in the second of two newspapers in the CNMI, the Saipan Tribune.

Lastly, the coordinator will work with radio and television outlets such as KKMP Radio, Power 99, and FlameTree TV to disseminate coral reef and CRI information. Maintaining strong relationships with the radio DJ’s is particularly important, as most of them already have established connections with their audiences, and would therefore be effective at communicating our key messages.

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FRIDAY, JULY 15, 2016

Reef tips

MARSHALLS VARIETY NEWS AND VIEWS

Coral Spawning in the Moonlight

Love is in the air. Actually it's in the water. For Saguam's hard coral species, July is the month of romance. Since corals cannot move about to meet other corals, about two thirds of all coral species take to a unique method of reproduction called broadcast spawning. Two to seven days after July's full moon, shortly after sunset, corals simultaneously release gamete bundles containing both sperm and eggs, which float to the surface and break apart. At the surface, mixing and cross-colony fertilization occurs. During a mass spawning event, there may be so many millions of coral eggs that the surface of the water appears pink and bubbly! After fertilization, coral larvae, called planulae, will spend days to weeks in the water column, possibly traveling great distances, before settling back down on a reef to become the corals we recognize. This type of reproduction allows the corals to reproduce with corals further away, increasing genetic diversity, resulting in healthier corals.

We may not understand the appeal of July's full moon, but it makes perfect sense to corals. Corals want their offspring to have the greatest chance of survival and they can have that with the environmental conditions that July offers. A full moon brings high tides and lots of water movement, possibly increasing fertilization and dispersal.

We can do our part as well to help the corals. It is especially important during spawning season to keep the waters clean and pollution free. Here are a few tips:

- Use less chemical fertilizers, rains will spread the fertilizer to the ocean, polluting the reefs.
- Do not burn. Burning your land can increase runoff and sedimentation polluting the reefs.
- Use mooring buoy systems to anchor your boat. Do not anchor on the reef.
- Fish responsibly and follow the laws against pill nets, SCUBA spearfishing, and chemical use.

For more information, visit www.comicoralreef.com

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WEDNESDAY, JUNE 8, 2016

Beach tips

MARSHALLS VARIETY NEWS AND VIEWS

HAPPY WORLD OCEANS DAY!

Want to protect your ocean in two easy steps?

Step 1: Download the Reef Report app



The Bureau of Environmental and Coastal Quality (BECQ) and Commonwealth Utilities Corporation (CUC) have launched a new smartphone app called Reef Report. You can use Reef Report to send alerts and photos to BECQ and CUC about environmental issues you see. Here's the scenario: the coral!

• Download the app by searching "Reef Report" in the Google Play store (coming soon to iPhones), or by scanning the QR code above.

• You can also find the app online by visiting erm.gov.gm and selecting "Publications and Links".

Step 2: Report environmental issues



The app may be accessed by searching for "Reef Report" on the Google Play store for Android, or by visiting the publications page of the BECQ CRM website (see page 7). The app is available in Chinese and Cantonese translations. Be sure to use the English version of the app. If you have suggestions or questions, let us know at CRM@emf.gm or emf.gm.

• Use the app to report pollution spills, sewage, coral bleaching and damage, drifting on the beach, illegal use of pesticides, CUC safety issues—and more!

• BECQ and CUC will review your report and follow up with a site inspection or forward your report to the appropriate agency.

• You can also call BECQ at 664-8300 or CUC at 664-4282!

Figure 5 An example of Reef and Beach Tips articles.